



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/995,470	11/28/2001	David Canard	FR 000127	2289

24737 7590 06/19/2003

PHILIPS INTELLECTUAL PROPERTY & STANDARDS
P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510

EXAMINER

NGUYEN, HAIL

ART UNIT	PAPER NUMBER
----------	--------------

2816

DATE MAILED: 06/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/995,470

Applicant(s)

CANARD ET AL.

Examiner

Hai L. Nguyen

Art Unit

2816

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The amendment received on 03/26/03 has been reviewed and considered with the following results:

As to the objection to the specification, Applicant's amendment of the abstract is accepted. However, the objection to the specification is still maintained as set forth below.

As to the objections to claims 1, 3, 6, and 7, Applicant's amendments have overcome the objections, as such; the objections to the claims have been withdrawn.

As to the rejection to claim 3, under 35 U.S.C. 112, 2nd paragraph, Applicant's amendments have overcome the rejection, as such; the rejection to claim 3 has been withdrawn.

As to the prior art rejections to the claims, the arguments and amendments by the applicant have been carefully reviewed, but are not persuasive. The arguments are addressed in the "Response to Arguments" section of this action. A new action on the merits appears below in view of Applicant's amendments of the claims.

Claim Objections

2. Claims 4 and 6 are objected to because of the following informalities:

Claim 4, line 4, "signal" should be changed to --signals--; and

line 7, --respectively,-- should be inserted after "reference signal,".

Claim 6, line 8, "signal" should be changed to --signals--; and

line 11, --respectively,-- should be inserted after "reference signal,".

Appropriate correction is required.

Specification

3. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

4. Specification should be amended to consider the above content of a specification. It is also suggested that the specific headings, mentioned above, are added to the specification for clarification of the existence of each section. Correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-4, and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Werker (US 5,103,191; previously cited).

With regard to claims 1 and 7, Werker discloses in Fig.1 a device, and a method of use thereof, for comparison including a phase/frequency comparator (PD), which is designed to receive the first and second input signals (SC, DOS); at least one current source (CP); and a capacitive element (C); in which device the phase/frequency comparator is designed such that the regulation signal comprises a succession of pulses (OS), each of which has a width which is modulated according to the frequency difference which exists between the first and second input signals.

With regard to claim 2, the phase/frequency comparator includes a flip-flop RS (FF1, FF2), the inputs of which for setting to one and to zero are piloted respectively by the first and second input signals, and an output of which is designed to emit the control signal.

With regard to claim 3, the phase/frequency comparator includes a first (G1) and a second detector (G2) for active edges of the first and second input signals respectively, the outputs of which are connected to the inputs for setting to one and to zero of flip-flop RS; and

Art Unit: 2816

means (G3, G4, G5) for re-initialization of the first and second detectors, which are designed to deactivate one or the other of the detectors, when the active edge which it has detected has been taken into account by the flip-flop RS.

With regard to claim 4, Werker discloses in Fig.1 a frequency synthesizer, including: an oscillator (VCO), which is designed to emit an output signal (OS) with an oscillation frequency which is controlled by means of a control signal; and a device for comparison (PD, CP, LF) which is designed to receive a first and a second input signals (SC, DOS) and to emit the control signal that is representative of a frequency difference between the input signals, the first and second input signals comprising the output signal of the oscillator and a reference signal, the device including: a phase/frequency comparator (PD), which is designed to receive the first and second input signals and to emit a regulation signal; at least one current source (CP), which is designed to emit a charge current with a value that is variable according to the regulation signal; and a capacitive element (C), which is designed to have the charge current pass through it and to generate the control signal; wherein the phase/frequency comparator is designed such that the regulation signal comprises a succession of pulses, each of which has a width that is modulated according to the frequency difference existing between the first and second input signals.

7. Claim 6 is rejected under 35 U.S.C. 102(e) as being anticipated by Kudou (US 6,337,976).

With regard to claim 6, Kudou discloses in Fig.1 a device designed for reception of radio signals, including: an input stage (1, 2), which is designed to receive a radio signal, and to convert the radio signal into a first output signal (S2), with a frequency known as a radio frequency; a frequency synthesizer including an oscillator (20), which is designed to emit a

Art Unit: 2816

second output signal (S20) with an oscillation frequency; and a device for comparison which is designed to receive a first and a second input signals (S24, S26) and to emit the control signal that is representative of a frequency difference between the input signals, the first and second input signals comprising the output signal of the oscillator and a reference signal, the device including a phase/frequency comparator (23), which is designed to receive the first and second input signals and to emit a regulation signal (S23), at least one current source (22), which is designed to emit a charge current with a value that is variable according to the regulation signal; and a capacitive element (21 inherently comprises capacitive element), which is designed to have the charge current pass through it and to generate the control signal (S21); wherein the phase/frequency comparator is designed such that the regulation signal comprises a succession of pulses each of which has a width that is modulated according to the frequency difference existing between the first and second input signals; and a mixer (3, 4), which is designed to receive the output signals of the input stage and of the frequency synthesizer, and to emit a signal with a frequency which is equal to a difference between the radio frequency and the oscillation frequency.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2816

9. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Werker in view of Ninomiya (US 6,512,801).

The above-discussed circuit of Werker meets all of the claimed limitations except that a divider (FD) of Werker is not a programmable divider (DIV in instant Fig.1 of present application). Ninomiya teaches in Fig.1 a circuit comprising a programmable divider (21), which is inserted between the oscillator (11) and the device (23, 25) for comparison as recited in claim 5. Therefore, it would have been obvious to one of ordinary skill in the art to implement the programmable divider taught by Ninomiya with the prior art (Fig.1 of Werker) in order to set a dividing ratio with which the oscillator (VCO) can generate the output signal (OS) with any frequency within the range of the circuit.

Response to Arguments

10. Applicant's argument is that "Werker simply mentions that a charge pump can be controlled in a pulsed fashion. Werker lacks any mention of using a regulation signal having a "succession of pulses," where each pulse has a "width which is modulated according to the frequency difference which exists between said first and second input signals" as recited in Claims 1 and 7. As a result, Werker fails to anticipate the Applicants' invention recited in Claims 1 and 7 " is not persuasive because that result function is also anticipated by Werker. The prior art does not have to disclose an exact term as claimed limitations in order to anticipate the claim. Since all of the rejections are solely based on the claimed limitations. Werker reference includes all of the structural limitations as per claims 1 and 7. Even though applicant recites that the manner in which the claimed apparatus functions is different from the applicants

Art Unit: 2816

interpretation of the function of Werker reference, the claimed apparatus does not differentiate from Werker apparatus, if the prior art teaches all the structural limitations of the claims. Ex parte Masham, 2 USPQ2d 1647 (Bd. Pat App. & Inter. 1987). Therefore, the rejections to claims 1 and 7, under 35 U.S.C. 102, are proper and remain as set forth above.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai L. Nguyen whose telephone number is 703-306-9178 and Right Fax number is 703-746-3951. The examiner can normally be reached on Monday-Thursday.


Art Unit: 2816

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on 703-308-4876. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

HLN 

June 3, 2003


TIMOTHY P. CALLAHAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800